

REMARKS

The Applicant has received and reviewed the Official Action dated 16 November 2005 (the "Action"), and submits this paper as a fully-responsive reply thereto.

The Applicant respectfully requests reconsideration and favorable action on the subject application. Claims 1, 2, 4-9, 11-16 and 20 are pending after entry of the revisions indicated above.

Claim Rejections under 35 U.S.C. § 103

As stated in Paragraph 3 of the Action, claims 1, 2, 4-9, 11-16 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over admitted prior art (hereinafter, "APA") in view of U.S. Patent No. 6,678,741 to Northcutt et al. (hereinafter, "Northcutt"). Applicant respectfully traverses the rejections, with the comments below being organized for convenience under appropriate headings.

1. The Portions of the Applicant's Specification Cited in the Action Are Not "Admitted Prior Art" under the MPEP.

On page 3, the Action characterized certain subject matter described on pages 3 and 4 of the Applicant's specification as "admitted prior art" (APA). However, the Applicant respectfully traverses this characterization, for at least the following reasons. MPEP § 2129 provides guidelines applicable to admissions as

prior art. In the interests of conciseness, MPEP § 2129 is not reproduced here in full. However, the portion appearing under Roman Numeral II ("Discussion of Prior Art in Specification") is reproduced here for convenience:

"Where the specification identifies work done by another as "prior art," the subject matter so identified is treated as admitted prior art. *In re Nomiya*, 509 F.2d 566, 571, 184 USPQ 607, 611 (CCPA 1975) (holding applicant's labeling of two figures in the application drawings as "prior art" to be an admission that what was pictured was prior art relative to applicant's improvement)."

The Applicant submits that page 3, line 21 through page 4, line 1 of the Applicant's specification, as relied upon in the § 103 rejections of claims 1, 2, 4-9, 11-16 and 20, does not identify or label work done by another as "prior art", as described in the above excerpt from the MPEP. On at least this basis, the Applicant requests reconsideration and withdrawal of the characterization of page 3, line 21 through page 4, line 1 of the Applicant's specification as APA.

On a similar basis, the Applicant submits that page 3, line 21 through page 4, line 1 of the Applicant's specification is not properly relied upon in the § 103 rejections of claims 1, 2, 4-9, 11-16 and 20. The Applicant thus requests reconsideration and withdrawal of the § 103 rejections of claims 1, 2, 4-9, 11-16 and 20, to the extent that these rejections rely upon the APA.

The Applicant proceeds with the rest of these remarks without conceding that the APA is prior art against the Applicant's claims. More particularly, the

Applicant provides the remarks below while maintaining the above request for reconsideration regarding the APA.

2. The § 103 Rejections as Stated in the Action Fail to Make Out a *Prima Facie* Case of Obviousness under § 103.

Turning now to the rejected independent claims in more detail, a portion of **independent claim 1** is reproduced here for convenience:

“(b) determining whether the software comprised on ~~each of the plurality of~~ firmware cards located in the multiplexor is a prescribed software version;

(c) if the software comprised on at least one of said ~~plurality of~~ firmware cards ~~located in the multiplexor~~ is not the prescribed software version, updating the software;”

...

(e) determining whether the further software comprised on the further firmware card located in the optical network unit is a further prescribed software version; and

(f) if the further software comprised in the further firmware card ~~located in one of the plurality of network units~~ is not the further prescribed software version, updating the further software;

(g) determining whether there is another optical network unit connected to the multiplexor over a fiber optic connection;

if so, then returning to step (d); and

if not, then determining whether there is another multiplexor in the fiber optic network and, if so, repeating the method for the other multiplexor.”

The Applicant respectfully submits that the Action has failed to state a *prima facie* case of obviousness under § 103 for at least three reasons. First, the Action does not specifically apply the claim language to the cited references. Second, contrary to the assertions in the Action, the APA does not teach or suggest certain elements recited in the Applicant's claims. Finally, Northcutt does not provide the teaching missing from APA that is necessary to support a § 103 rejection. Further, Northcutt teaches away from the claimed subject matter.

First, the Applicant submits that the Action does not state a *prima facie* case of obviousness under § 103, at least because the Action fails to establish that the cited references, specifically Northcutt, teach or suggest the features recited in the Applicant's claim 1. Instead, page 3 of the Action merely states the following regarding Northcutt:

Northcutt

demonstrated that it was known at the time of invention to check the firmware of a second unit to synchronize/update the second unit with a first unit (figure 3, column 2, lines 36-42). Further, **Northcutt** disclosed updating additional network units (column 8, lines 45-48).

The Applicant submits that the foregoing does not establish that Northcutt teaches or suggests at least the following features recited in the Applicant's claim 1:

“(b) determining whether the software comprised on ~~each of the plurality of~~ firmware cards located in the multiplexor is a prescribed software version;

(c) if the software comprised on at least one of said ~~plurality of~~ firmware cards ~~located in the multiplexor~~ is not the prescribed software version, updating the software;

...

(e) determining whether the further software comprised on the further firmware card located in the optical network unit is a further prescribed software version; and

(f) if the further software comprised in the further firmware card ~~located in one of the plurality of network units~~ is not the further prescribed software version, updating the further software;

(g) determining whether there is another optical network unit connected to the multiplexor over a fiber optic connection;

if so, then returning to step (d);”

The Applicant respectfully requests that if the stated rejections are maintained in the next Action, that the next Action apply the claimed features specifically to the cited art.

For at least this reason, Applicant respectfully requests that the cited art does not support a § 103 rejection of claim 1. On at least this basis, the Applicant requests reconsideration and withdrawal of the § 103 rejection of claim 1.

Secondly, Applicant respectfully submits that the Action fails to state a *prima facie* case of obviousness under § 103 because the APA does not teach or suggest certain features recited in claim 1. For example, page 3 of the Action states that the APA teaches “then determining whether there is another multiplexor in the fiber optic network and, if so, repeating the method for the other multiplexor (page 3, line 21 to page 4, line 1).” However, the Applicant respectfully disagrees.

The cited portion of Applicant's specification (page 3, line 21 through page 4, line 1) is reproduced here for convenience:

Existing systems have the capability to query a network element such as an ONU or HDT for the version of software running on a particular card on a particular machine.

The Applicant submits that the above passage does not teach or suggest at least "determining whether there is another multiplexor in the fiber optic network and, if so, repeating the method for the other multiplexor", as recited in claim 1. On at least this basis, the Applicant submits that the APA fails to support a § 103 rejection of claim 1, and requests reconsideration and withdrawal of the § 103 rejection of claim 1.

Thirdly, the Applicant submits that Northcutt fails to provide the teaching missing from the APA necessary to support a § 103 rejection of claim 1. More particularly, Northcutt fails to teach or suggest "determining whether there is another multiplexor in the fiber optic network and, if so, repeating the method for the other multiplexor", as recited in claim 1.

Northcutt's abstract describes a method for synchronizing firmware associated with a server and a client computer. The Action cites column 8, lines 45-48 of Northcutt, which states that "if the firmware associated with a central device, such as a server, is updated, then all of the remote devices, such as HIDs are automatically updated as well." However, this portion of Northcutt neither teaches nor suggests "*determining whether there is another optical network unit connected to the multiplexor . . . [and] determining whether there is another*

multiplexor in the fiber optic network”, as recited in Applicant’s claim 1. (emphasis added).

Not only does Northcutt fail to teach or suggest this claimed feature, Northcutt also teaches away from this claimed feature. While claim 1 is directed to automated distribution of software in a fiber optic network that may comprise multiple multiplexors, Northcutt addresses updating the firmware of “remote devices” associated with a *single* “central device”. *Id.* (emphasis added).

Given Northcutt’s overall teachings, one of ordinary skill in the art would understand Northcutt to teach a single server. This is because Northcutt addresses the problem of ensuring that multiple workstations connected to a server are continuously updated with the server. Such a problem may generally be found in an office atmosphere, where multiple computers are connected a *single* server. (See *Northcutt*, Fig. 1). As such, Northcutt would not address the situation where a network may comprise *both* multiple network units and multiple multiplexors, which may be the case in a fiber optics network.

Based at least on the foregoing, the Applicant respectfully submits that one of ordinary skill in the art would not be motivated to use the single server teachings of Northcutt, which may be functional in an office atmosphere, in a fiber optics network which may include multiple network units *and* multiple multiplexors, all of which may include software that may need to be updated.

3. The Applicant has Revised Claim 1 to Clarify Further Features of the Recited Method.

Without conceding the propriety of the stated § 103 rejection, and without prejudice to the comments above, and only to advance the prosecution of this application, the Applicant has revised claim 1 as indicated above to clarify further features of the method.

For convenience, the Applicant reproduces part of claim 1 herein, with redlines included to indicate revisions:

“(d) identifying further software comprised on at least a further firmware card located in at least one of a plurality of optical network units that are connected to the multiplexor over a fiber optic connection and that are connected to one another by an optical channel shelf provided by the multiplexor;

(e) determining whether the further software comprised on the further firmware card located in the optical network unit is a further prescribed software version; and

(f) if the further software comprised in the further firmware card ~~located in one of the plurality of network units~~ is not the further prescribed software version, updating the further software;”

The Applicant submits that these features are fully supported by the Applicant's specification, at least by Figure 1, which shows a plurality of optical network units 118 connected to the multiplexor 122 via a given optical channel shelf 126. Thus, the optical network units 118 are arranged in a many-to-one relationship with the shelf 126 and the multiplexor 122. Also, as described at page 13, lines 2-17, the software across the ONUs 118 is checked for consistency

with one another, and the software across the multiplexors 122 is checked for consistency with one another.

The Applicant respectfully submits that, in addition to the comments above, Northcutt fails to teach or suggest at least the above features of claim 1. On at least this further basis, the Applicant requests reconsideration and withdrawal of the stated § 103 rejection of claim 1.

Dependent claims 2 and 4-7 depend from claim 1 and stand rejected on similar grounds. Accordingly, the above comments directed to claim 1 apply equally to these claims. Moreover, these claims recite features that, when taken together with those of claim 1, define methods not taught or suggested by the cited art.

Independent claim 8 recites a method for automated distribution of software in a fiber optic network. In making out a rejection of this claim, the Office states that “[t]he limitations of claim 8 are substantially the same as for claim 1 and are rejected in the same manner.” (*Office Action of 11/16/05*, p. 5). Therefore, the Applicant respectfully requests reconsideration and withdrawal of the § 103 rejection of claim 8, for at least the same reasons as given above with claim 1.

Dependent claims 9 and 11-16 depend from claim 8 and stand rejected on similar grounds. Accordingly, the above comments directed to claim 8 apply equally to these claims. Moreover, these claims recite features that, when taken together with those of claim 8, define devices not taught or suggested by the cited art.

Independent claim 20 recites a system for automatically distributing software in a fiber optic network. In stating the rejection of this claim, page 7 of the Action states that “[t]he limitations of claim 20 are substantially the same as for claim 1 and are rejected in the same manner.” Therefore, the Applicant respectfully requests reconsideration and withdrawal of the § 103 rejection of claim 20, for at least the same reasons as given above with claim 1.


The Applicant has amended some pending claims to address informalities noted by the Applicant when preparing this response.

Conclusion

Applicant respectfully requests reconsideration and withdrawal of the rejections of claims 1, 2, 4-9, 11-16 and 20, and favorable action on the subject application. If any issue remains unresolved that would prevent allowance of this case, the Examiner is requested to contact the undersigned attorney to resolve the issue.

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Respectfully Submitted,

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